

In the claims:

1-37. **(Cancelled)**

38. **(Previously presented)** A method of imparting motion to a fluid to impart motion to a biological sample located in the fluid, said method comprising,

providing an acoustic source for generating a focused acoustic field, wherein said acoustic source generates a wavetrain substantially converging in a focal zone having a diameter less than or equal to 2 cm, and directing said focused acoustic field to at least one nucleation feature located proximate to the sample located in the fluid to impart motion to the fluid and to the sample located in the fluid proximate to said nucleation feature.

39. **(Cancelled)**

40. **(Previously presented)** The method of claim 38, wherein said step of directing said acoustic field comprises, adjusting a relative position between said acoustic source and said at least one nucleation feature to bring at least one nucleation feature within a focal zone of said acoustic source.

41-42. **(Cancelled)**

43. **(Original)** The method of claim 38, wherein said fluid contacts a first surface, and said first surface includes said at least one nucleation feature.

44. **(Cancelled)**

45. **(Original)** The method of claim 43, wherein said first surface is a surface of a microchamber.

46. **(Cancelled)**

47. **(Previously presented)** The method of claim 43, wherein said at least one nucleation feature includes at least one of a pit, crevice, scratch, groove and ridge in said first surface.

48-50. **(Cancelled)**

51. **(Original)** The method of claim 43, wherein said fluid has a volume between about 0.1 pl and about 10 ml.

52-53. **(Cancelled)**

54. **(Original)** The method of claim 38, wherein said fluid is contained in a microchamber.

55-62. **(Cancelled)**

63. **(Original)** The method of claim 38, wherein said motion imparted to said fluid is of sufficient magnitude to cause a mixing action in said fluid.

64-67. **(Cancelled)**

68. **(Previously presented)** The method of claim 38 comprising, prior to said step of directing said acoustic field, positioning said at least one nucleation feature proximate to said sample.

69-112. **(Cancelled)**

113. **(Previously presented)** An apparatus for imparting motion to a fluid to impart motion to a biological sample located in the fluid, said apparatus comprising,

an acoustic source for generating a focused acoustic field, wherein said acoustic source generates a wavetrain substantially converging in a focal zone having a diameter less than or equal to 2 cm, and

a controller adapted to control operation of said focused acoustic source, wherein said apparatus directs said acoustic field and focuses said field to at least one nucleation feature located proximate to the sample located in the fluid to impart motion to the fluid and to the sample located in the fluid proximate to said nucleation feature.

114. **(Original)** The apparatus of claim 113, wherein said acoustic source is further adapted to provide said direction of said acoustic field, and to provide said acoustic field as a focused acoustic field to said at least one nucleation feature.

115. **(Previously presented)** The apparatus of claim 113 further comprising, a positioning mechanism for adjusting a relative position between said acoustic source and said at least one nucleation feature, to bring said at least one nucleation feature within a focal zone of said acoustic source.

116-117. **(Cancelled)**

118. **(Original)** The apparatus of claim 113, wherein said fluid contacts a first surface and said at said first surface includes said at least one nucleation feature.

119. **(Cancelled)**

120. **(Original)** The apparatus of claim 118, wherein said first surface is a surface of a microchamber.

121. **(Cancelled)**

122. **(Previously presented)** The apparatus of claim 118, wherein said at least one nucleation feature includes at least one of a pit, crevice, scratch, groove and ridge in said first surface.

123-125. **(Cancelled)**

126. **(Original)** The apparatus of claim 118, wherein said fluid has a volume between about 0.1 pl and about 10 ml.

127-128. **(Cancelled)**

129. **(Original)** The apparatus of claim 113, wherein said fluid is contained in a microchamber.

130-136. **(Cancelled)**

137. **(Original)** The apparatus of claim 113, wherein said motion imparted to said fluid is of sufficient magnitude to cause a mixing action in said fluid.

138-141. **(Cancelled)**

142. **(Previously presented)** The apparatus of claim 113, wherein said apparatus is further adapted to direct said acoustic field with sufficient specificity to promote mixing of a portion of said fluid proximate to said sample.

143-150. **(Cancelled)**

151. **(Previously presented)** The method of claim 38, wherein said fluid is contained in a microvessel.

152. **(Previously presented)** The apparatus of claim 113, wherein said fluid is contained in a microvessel.

153. **(Cancelled)**